

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention.

[0001] This invention relates to display cases, and more particularly to a display case capable of storing, exhibiting and protecting a collectible item and accompanying packaging while providing the option to conceal the packaging by inserting a compartment panel that functions to separate the display case into a display area and a concealed storage area.

### 2. Problems in the Art.

[0002] Hobbyists that collect items often desire to protect, preserve and exhibit their collectibles. Preservation and protection of collectibles entails protection from hazards such as weather elements, dust, sunlight, insects, and unwanted handling to name a few. An example of a common collectible item would be a 1/24<sup>th</sup> scale die cast model car reproduction of a professionally driven race car.

[0003] Collectibles are known to be more valuable the better the collectible is preserved. Possessing the original packaging to a collectible item can add additional value to the collectible. Such packaging must also be preserved and protected to maximize the value of the collectible and packaging set. Ideally, the hobbyist should be able to store the collectible and the packaging in a protected case that can display the collectible and either display or hide the storage compartment where a packaging box may be stored.

[0004] An example of one type of display case is supplied by Woy in US Patent 5,865,516. The Woy patent describes an illuminated automobile display case capable of allowing all sides except the bottom of the model to be displayed. However Woy provides no space for either the storage or display of the packaging. No mention is made of the Woy display case being stackable. Additionally, the Woy display case utilizes a level surface while the present invention preferably utilizes a slope to improve the viewing angle and simulate the appearance of a race car on a sloped racetrack.

[0005] An additional example of a display case is illustrated by Harlan in US Patent 6,497,461. The Harlan patent describes a sloped riser beneath a clear cover but fails to make the case stackable and does not include either concealed or visible storage space.

[0006] Yet another display stand is described by Goodman in US Design Patent 395,562. This case provides an open, sloped display platform but offers no storage or display of the packaging, provides no protection for the collectible, and is not stackable.

[0007] A wall mounted model car display shelf is described by Guillot in US Patent 6,467,632. The Guillot invention utilizes a sloped shelf designed as a model racetrack for display and includes unviewable storage beneath the display shelf for storing the packaging. However, the Guillot invention fails to preserve and protect the collectible items. Similar sloped display shelves which have racetrack designs are illustrated by US Design Patent 429,919 by Kornacki; US Design Patent 391,795 by Pellerin; and US Patent 5,560,500 by Wilcox. An illuminated

version of a racetrack display shelf is described by Schultz et al. in US Patent 5,941,176. None of the aforementioned display shelves protect the items on display, and only the Guillot invention offers storage of any kind. Multi-unit, wall-mounted protective display cases without storage for packaging and sloped shelves are illustrated in US Design Patent 431,734 by Edgell and US Design Patent 447,363 by Tharpe

[0008] TenBrink describes a stackable interlocking modular display case in US Patent 5,924,778. However the TenBrink invention does not include storage space and has no sloped shelf. Moreover, the TenBrink invention is designed to interlock the top of one case to the bottom of another as well as laterally join two display cases together so as to display a complete train with several cars. A similar design is illustrated in US Design Patent 264,906 by Franklin, however the Franklin design is not stackable in addition to offering no sloped display shelf and no storage.

#### SUMMARY OF THE INVENTION

[0009] The present invention has been made in view of the previously described limitations and other limitations of known display cases utilized to display collectible items such as model cars.

[0010] It is an object of the present invention to provide a display case with a preferably sloped display shelf, but alternatively level, descending toward the front of the case and ascending toward the rear of the case to improve the viewing

angle of the displayed item as viewed through a glass window in the front of the case body of the display case. Mirrors are utilized to provide a full view of the displayed item from all sides.

[0011] It is a further object of the present invention to provide a display case with storage for the packaging of the displayed collectible. Preservation of the original packaging is known to enhance the value of collectibles.

[0012] It is yet another object of the present invention to provide a display case that encloses and protects the displayed item and packaging from damage due to hazards such as weather elements, dust, insects, sunlight, and undesired handling. The value of a collectible item is known to be related to the quality of its preservation.

[0013] It is a further object of the present invention to provide a display case that is stackable so that several display cases may be displayed together in an aesthetically pleasing manner. The lid member and base member of the display case body are preferably parallel to each other and preferably planar to allow easy stacking.

[0014] It is yet another object of the present invention to provide a display case that optionally provides for display of the stored packaging. The original packaging can be as interesting and sought after as the preserved collectible and the hobbyist often desires the ability to display both together.

[0015] These and other objects, features, and advantages of the present invention will become more apparent with reference to the accompanying specification and claims.

[0016] To achieve the objects of the present invention as described, the display case body is box-like or crate-like and preferably cuboidal. The top of the display case is a removable lid member with an upper surface that is planar and a bottom surface that rests on the top edges of the side walls of the case body and faces the interior of the display case. The lid member can be loose, affixed pivotally, fit snugly into the top of the case, or be of any other design that would allow the top to be removed.

[0017] The collectible item or model car can be viewed from the front of the display case through a window in the observation panel, the window preferably being made of glass, a synthetic glass substitute, or a similar transparent material. Alternative embodiments would allow for windows which permit viewing from above, laterally, or from the rear of the case body. Within the case body is a display shelf which has a leading edge that is affixed at or near the bottom of the window in the observation panel located at the front of the case body. The bottom of the window is preferably in close proximity to the base member and preferably occupies the entire width of the case body. The display shelf is sloped so as to ascend as it approaches the rear of the display case and preferably continuously abut the side edges of the display shelf with the side walls. The display shelf terminates at a receding edge that abuts a compartment panel that is preferably mirrored and which preferably serves to segregate the display compartment from the storage compartment in the display case, extending from

the lid member preferably down to the base member or alternatively to the receding edge of the display shelf. A display stop consisting of a ridge, a recess, or similar means may be used to prevent the displayed item from slipping. The upper surface of the display shelf may be mirrored to improve viewing of the displayed item as well as aesthetics.

[0018] The compartment panel is placed between the display shelf and the rear panel in order to reflect the hidden side of the collectible to the viewer at the front. A mirror is preferably used as the compartment panel. The compartment panel is located within the display case in a manner allowing enough storage space so that the displayed item packaging can be stored. The compartment panel should preferably abut the receding edge of the display shelf. Two opposing, and preferably parallel, linear grooves extend from the top of the case to at least the terminating point of the back edge of the display shelf on the inside of the side walls so as to divide the display area and storage area and serve as a guide and stop for the compartment panel. Ledges are placed along the interior sides of the side wall panels and behind the compartment panel receiving grooves, parallel to the base member and lid member so as to provide support for the stored item packaging. The ledges are placed at the same height of the receding edge of the observation panel so as to level the bottom of the packaging with the top of the display shelf so that the displayed face of the packaging may be fully viewed. Both the window and compartment panel may be individually or dually stored at the rear of the display case in double panel receiving grooves. Alternatively, two sets of grooves may be utilized instead of one larger set of grooves. This feature permits the panels to be securely stored for shipping.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0019] In the accompanying drawings:

[0020] **FIG. 1** is a perspective view from above the display case partially showing the display shelf, window, compartment or mirror panel, a side display mirror, and the ledge on which stored packaging rests.

[0021] **FIG. 2** is a side cross-sectional view of the display case.

## DETAILED DESCRIPTION

[0022] With reference to **FIG. 1**, a preferred embodiment of a display case in accordance with the present invention is shown by reference numeral 22, the basic structure of which includes a base member 3, right side wall 4, left side wall 8, window 1, frame-type, front observation panel 2 to secure the window 1 to the base member 3 and right side wall 4 and left side wall 8, a rear panel 5, a display shelf 11, a compartment panel or mirror panel 12, side wall mirrors 13, and storage support ledges 9.

[0023] The rear panel 5 is received into the side wall cut-outs 6 located in the rear vertical edge in the right side wall 4 and left side wall 8 in order to embed and secure the rear panel within and between the right side wall 4 and left side wall 8. The window 1 through which the displayed item may be viewed is received into front side wall cut-outs 7 in the front vertical edge of the right side wall 4 and left side wall 8 in

order to embed and secure the window within and between the right side wall 4 and left side wall 8. The window 1 is further secured within the front side wall cut-outs 7 by a decorative frame-type observation panel 2 secured to the right side wall 4 and left side wall 8 and base member 3. Parallel and opposing compartment panel receiving grooves 14 are present in the right side wall 4 and left side wall 8 transverse to the base member. An affixed or removable mirror panel 12 or compartment panel 12 is received and secured by the compartment panel receiving grooves 14 and functions to separate the rear storage compartment 10 from the forward display compartment 15. Double panel receiving grooves 21 are present in the right side wall 4 and left side wall 8 transverse to the base member at the rear of the display case between the rear panel 5 and support ledges 9 and are intended to receive the compartment panel and or window for storage purposes. On the right side wall 4 and left side wall 8 between the window 1, compartment panel receiving grooves 14 and display shelf 11; side wall mirrors 13 are affixed to the right side wall 4 and left side wall 8 in the forward display compartment 15 to facilitate lateral viewing of the displayed item. The storage support ledges 9 are affixed to the right side wall 4 and left side wall 8 and run parallel to the base member 3 at the height of the rear edge of the display shelf 11, creating a displayable storage area 20.

[0024] FIG. 2 presents a cross sectional view of the display case 22. Additional features that can be seen include the lid member 16 and the rear lower edge cut-out 17 in the lid member 16. Extending the lid member 16 over and past the top of the rear panel 5 allows for a better seal and a tighter fit for the lid member 16. The lid member 16 fits flush against the top of the window 1 at the frame-window-lid member joint 18 and abuts



the posterior of the top of the frame-type observation panel 2 or observation panel 2 to form a planar surface on top of the display case to facilitate stacking. The display stop 19 on the display shelf 11 can also be seen. The display stop 19 is preferably a ridge in the rear upper surface of the display shelf 11 which functions to catch the displayed item to prevent slippage down the slope of the display shelf 11. The display shelf 11 is also shown to run from the base of the window 1 to the compartment panel receiving grooves 14 and terminating at an even height with the storage support ledges 9 thus the bottom of the suspended packaging. The storage support ledges 9 are placed at a predetermined height to accommodate the height required to fully display the item packaging. The compartment panel receiving grooves 14 are placed at a sufficient distance from the rear panel 5 to accommodate the width of the item packaging to be displayed. The width of the display case 22 is designed to accommodate the length of the packaging to be displayed in the displayable storage area 20.